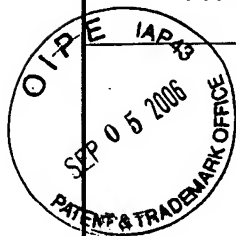


## PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

2519-0122PUS1



Application Number

10/657,181-Conf.  
#1619

Filed

September 9, 2003

First Named Inventor

Chun-Lung CHIU et al.

Art Unit

2816

Examiner

A. T. Luu

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant /inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b)  
is enclosed. (Form PTO/SB/96)

☒

attorney or agent of record.

Registration number 32,334

☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34.

Signature

Joe McKinney Muncy

Typed or printed name

(703) 205-8026

Telephone number

September 5, 2006

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐

\*Total of 1 forms are submitted.



Docket No.: 2519-0122PUS1  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Chun-Lung CHIU et al.

Application No.: 10/657,181

Confirmation No.: 1619

Filed: September 9, 2003

Art Unit: 2816

For: PWM BUFFER CIRCUIT FOR ADJUSTING A  
FREQUENCY AND A DUTY CYCLE OF A  
PWM SIGNAL

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Examiner: A. T. Luu

**PRE-APPEAL BRIEF CONFERENCE REASONS FOR REVIEW**

September 5, 2006

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants request a review of the Examiner's understanding of the references in a Pre-Appeal Brief Conference prior to the filing of an Appeal Brief. Applicants are submitting herewith a Notice of Appeal and the requisite fee as well as a Pre-Appeal Brief Request for Review Form. Applicants request that the Examiner's final rejection be reviewed in particular in regard to the Examiner's understanding of the Seong reference (U.S. Patent 5,606,296).

The present application has now received a final rejection in the third Action after the filing of an RCE. Two other Actions were presented prior to the filing of the RCE. Currently claims 1-7 and 9-21 are pending. This includes independent claims 1, 10, 20 and 21. The Examiner has indicated the allowability of dependent claims 2, 5, 12 and 15 if rewritten in independent form.

The present invention relates to a control circuit for the speed of a fan motor. A buffer circuit 20 is provided which includes a duty cycle converting circuit 21 and a frequency-fixed PWM signal generating circuit 22. In order to avoid noises in driving the fan motor, a fixed frequency signal is generated having a fixed frequency and a variable duty cycle reference voltage. The use of this fixed frequency signal is at the heart of the present invention since it avoids switching noises in the fan.

Claim 1 specifically describes generating circuit 22 in the last paragraph of the claim. This is referred to as “a frequency-fixed PWM signal generating circuit.” This paragraph also states that this circuit “outputting a second PWM signal having a fixed frequency.”

The Examiner relies on the Seong reference to reject claim 1 under 35 USC 102. The Examiner equates the duty cycle converting circuit with the error amp 301 of Seong. The Examiner states that the rest of the circuit in Fig. 3 corresponds to the frequency fixed PWM signal generating circuit. The Examiner also states that this circuit outputs the second PWM signal having a fixed frequency. Applicants disagree that Seong shows such a frequency fixed signal generating circuit. Instead, Seong teaches that the device maintains a voltage amplitude  $\Delta V$  of the sawtooth wave so as to reach system optimization. Thus, Applicants submit that the reference does not teach a fixed frequency signal, but rather a constant amplitude signal. This is especially seen in Figs. 4A to 4C and described in Col. 4, lines 5-10. As is clear, Seong does not suggest a PWM signal with a fixed frequency but rather an output signal having a fixed amplitude. Applicants submit that claim 1 is not anticipated by the Seong reference and in particular that Seong does not teach any fixed frequency features.

Independent claim 10 likewise contains a description of the buffer circuit producing a second PWM signal having a fixed frequency. Independent claim 20 is essentially the equivalent of claim 1 plus claim 3 and independent claim 21 is essentially a combination of claims 10, 11 and 13. Accordingly, these two claims likewise include a reference to a fixed frequency signal. Many of the dependent claims also refer to the frequency fixed feature, including claims 3, 4, 9, 11, 13, 14 and 19.

The Examiner rejected claims 3 and 20 as being obvious over the same Seong reference. The same arguments presented above also apply to this rejection.

Claims 6, 10, 11, 13, 14, 16, 17, 19 and 21 have been rejected as being obvious the same Seong reference in view of Hoffman (U.S. Patent 5,457,435). The Examiner relies on Hoffman to teach the concept of the resistor used to drive a signal. However, this reference also does not include any teaching of a fixed frequency generator and the Examiner does not rely on this reference for this feature.

Conclusion

In view of the above, Applicants submit that the Examiner misunderstood the Seong reference in stating that it includes a frequency fixed PWM signal generating circuit which outputs a second PWM signal having a fixed frequency. Accordingly, Applicant submit that the Examiner's rejections, all of which are based on the Seong reference, are incorrect.

Dated: September 5, 2006

Respectfully submitted,

By 

Joe McKinney Muncy

Registration No.: 32,334

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant